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LETTER OF TRANSMITTAL

Project:	904 E Highland Dr – SDCI Project Number: 6702554-CN
Date:	February 01, 2022
To:	Michael Bocklund, SDCI Reviewer
From:	Jack Chaffin, Johnston Architects
Re:	Response to Corrections – Energy

Response to Energy Corrections #1 (March 04, 2020)

1. ***Component Performance ENV-UA Pg. 1 Calculation Form (Roofs)***
   Drawing BE900: the U-Factors appearing on the ENV-UA form do not match up to the two R23 roof assemblies appearing on A811 (by those, U's are expected to be 0.021). Review and update the ENV-UA U-Factors to match the two R23 assemblies appearing on the drawings.

   Also, as the drawings make no indication of ci insulation beyond R20 (no slopes for +R20 noted anywhere), the U's on the ENV-UA form lower than 0.021 are in question. Add appropriate notes on the drawing to justify/support +20ci insulation levels that equate to lower than 0.021 U's. [Note to SDCI reviewer: roof frmg is 11-7/8" TJI's at 16" o.c. per dwg S206]

   Response: Pease, see sheet BE903 with the calculations that indicates U-value for the different portions of the roof.

2. ***Component Performance ENV-UA Pg. 1 Calculation Form (Walls Above Grade - Mass)***
   Drawing BE900: wall assembly 3X02 applied solo does not equate to a listed U-Factor of 0.058 as appears on the ENV-UA form. Review and support the 0.058 U with a calculation or otherwise explain how the 0.058 is justified.

   Response: Wall assembly 3X02 has been updated. Please, see sheet A810.

JA

3. ***Component Performance ENV-UA Pg. 1 Calculation Form (Walls Above Grade - Mass)***
   Drawing BE900: provide a verifiable detail reference for the L1 Slab Edge R-11ci assembly noted on the ENV-UA calculation form (current ref. of 5/A914 is not current).

   Response: ENV-UA calculations have been revised, detail 07-08/A912 has been added.

4. ***Component Performance ENV-UA Pg. 1 Calculation Form (Walls Below Grade)***
   Drawing BE900: the ENV-UA form lists assembly 3X12. Assembly 3X12 does not appear on drawing A200. Provide backup for where the 3X12 assembly occurs on the project.
   Plus, no assembly 3X12 appears on drawing A810. Clarify.

   Response: Wall assembly 3X12 has been changed to 3X14. ENV-UA calculations have been revised and updated.

5. ***Component Performance ENV-UA Pg. 1 Calculation Form (Floors - Mass Type)***
   Drawing BE900: the F47 Level 1 (L1) floor assembly on drawing A811 needs to have a U-Factor noted for the ci insulation.

   Response: ENV-UA calculations have been revised and updated in order to indicate floor assembly F47

6. ***Component Performance ENV-UA Pg. 1 Calculation Form (Floors – Mass Type)***
   Drawing BE900: the F46 Level 2 floor assembly identifier needs to appear on section 6/A417 or detail 9/A912.

   Response: ENV-UA calculations have been revised and updated in order to indicate floor assembly F46

7. ***Component Performance Calculations Excel Worksheets***
   Drawings BE 900, BE901 & BE902: the worksheets are "Revised Nov 2017" edition forms (look in the upper right hand corner for the "Revised Nov 2017" notation). These are outdated forms. It's ok to continue to use the forms for

JA

this project, but for your other upcoming work, use the latest "Revised Aug 2019" forms available on our SDCI site.

Response: Noted.

8. ***SEC C403.2.4.10 Group R-2 Programmable Heating System Controls***
   Add language to the drawings to require a programmable thermostat for control of the primary heating system within each dwelling unit.
   Be apprised we did observe the Prgm. T'stat symbol on drawings A600 to A615. Without the symbol appearing on the actual floor plans, the requirement for a prgm t-stat is not met.

   Response: Please, see sheets A600 through A615 “Mechanical Electrical Notes”, item #8. Also, the T’stat symbol has been added to unit plans on sheets A600-A615.

9. ***SEC C411 On-Site Renewable Energy Systems***
   Drawing A205: add a note to the drawing to see drawing BE902 for the solar C411 calculation.

   Response: Sheet A205 has been revised and updated.

10. ***Heating Load Calculations***
    SEC C403.2.1 and SMC 312.1: Provide a completed Heating Equipment Sizing calculation for each dwelling unit. Calculation forms are available online at:
    http://www.seattle.gov/sdci/codes/codes-we-enforce-(a-z)/energy-code/forms after clicking look at the Residential Buildings section. At that section click on the link for Energy Code Worksheets from WSU. Once you're at the WSU site you'll find a spreadsheet for "Heating System Sizing Worksheet". The same link to "Energy Code Worksheets from WSU" appears here: http://www.seattle.gov/sdci/permits/forms

    Response: See sheets BE904 and BE905

11. ***SMC 403.4.4 Local Exhaust Fans***

JA

Drawings A610 to A615: note on each drawing the CFM of each local exhaust fan. Also note how each fan is run (continuously or switched intermittently). Refer to SMC Table 403.3 for CFM/controls.*

** Kitchens are to run at 25 CFM continuously or be minimum 100 CFM if switched intermittently. Bathrooms and Laundry Closets are to run at 20 CFM continuously or be set at 50 CFM if run/switched intermittently. If running continuously then mark as such on the drawings.*
Also, be advised, if exceeding 400 CFM for the kitchen fans, then review SMC 505.2 and note makeup air on the drawings.

Response: Exhaust fans have been added to sheets A610-A615

12. SMC 403.4.5 & SMC 403.4.6 Whole House Ventilation Systems

Drawings A610 to A615: note on the drawings how meeting SMC 403.4.5 & 403.4.6 for the new dwellings by indicating on the drawings which exhaust fan shall function as each dwelling's whole house exhaust fan.
Additionally

a. *Indicate on the drawings whether the whole house fans (WHF) for the dwellings will operate continuously or intermittently.*
b. *If the WHFs are to operate continuously, indicate the CFM flow rates to be provided (ref. SMC Table 403.4.1).*
c. *If the WHF systems are to operate intermittently, indicate on the drawing the run-time percentage in each 4-hour segment and, the corresponding upsized ventilation CFM (ref. SMC 403.4.5.1 & SMC Table 403.4.5.1).*
d. *Per SMC 403.4.6.1 Outdoor Air section: as the unit's are relying on operable windows (Mech. Elec. Note #7 on dwg's A610 to A615) note on the drawings the windows to be controllable and securable.*

Response: Whole house fans have been indicated on the drawings, with notes regarding operation and CFM flow rates. Please see sheets A302-A305 for controllable, securable, and screened operable window locations.

13. Exhaust Vent Clearances

Per SMC 501.3, exhausts shall terminate outdoors and not in attics, soffits, ridge vents, or crawl spaces and, per SMC 501.3.1-#3, exhausts shall

JA

terminate not less than 3 feet from property lines, 3 feet from operable openings into the building and 10 feet from mechanical air intakes. Accordingly, illustrate on elevation drawings A302 to A305 the exhaust fan vents with 3 ft radius clearance circles for plan verification and inspection purposes.

Response: Exhaust fan vents and associated 3ft clearance radii have been indicated on elevations.

14. SMC 403 & Table 403.3.1.1 Ventilation at Public Spaces - Corridors

Drawings A200 through A203: illustrate and note on the plans that adequate spaces are provided allowing for mechanical ventilation systems to supply air to the corridors (no mechanical plans are required). It's acceptable in your response letter to acknowledge this is covered by referencing shafts/spaces on the plans (be apprised a note add only is not sufficient -> the provided spaces must appear on the drawings).

Response: Mechanical spaces/shafts have been indicated on the plans for ventilation in the corridors

15. SMC 404 and SMC 501.3.1-#5 Parking Garages

Drawing A200: illustrate and note on the plans that spaces are provided allowing for the garage to be ventilated per SMC 404, with termination of exhaust points adhering to SMC 501.3.1-#3 (mechanical plans are not required).
It's acceptable in your response letter to reference shafts/spaces on the plans for this item (be apprised notes only are not sufficient -> the provided spaces must appear on the drawings).
Also, the 18" SQ. LOUVER AND FAN noted on A200 needs further documentation added to demonstrate how it is utilized in the overall garage ventilation scheme.

Response: Intake and exhaust louvers/fans have been located and noted on sheet A200, and these locations adhere to SMC 502.3.1.

JA

Please let me know if you have any questions.

Thank you,

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